Catalogue of American Amphibians and Reptiles.

Townsend, J.H., J.R. McCranie, and L.D. Wilson. 2004. *Corytophanes*.

Corytophanes Boie
Helmeted Basilisks, Turipaches

Corytophanes: Boie *in* Schlegel 1827:290. Type species, *Agama cristata* Merrem 1820:50, by monotypy.
Corythophanes: Wagler 1830:151. *Nomen substitutum*.
Cyrtophanus: Gray 1831:55. *Lapsus*.
Chamaeleopsis: Wiegmann 1831:298. See **Remarks**.
Corythophanus: Gravenhorst 1833:938. *Lapsus*.
Chamaeleopris: Troschel 1865:599. *Lapsus*.
Corythophanesus: Herrera 1899:21.
Corythophanse: Kästle 1975:192. *Lapsus*.
Corytopherus: Elter 1981:63. *Lapsus*.

• **CONTENT.** Three species are recognized: *Corytophanes cristatus*, *C. hernandesii*, and *C. percarinatus*.

• **DEFINITION.** The genus *Corytophanes* is characterized by moderate size (maximum SVL = 125 mm), a long tail (about 2.0–2.5 times SVL), a laterally compressed body, and a triangular-shaped cephalic casque projecting posteriorly past the head. The dorsal head scales can be smooth, rugose, or keeled. A nuchal crest is continuous with the cephalic casque, and is or is not continuous with a serrated middorsal crest. A serrated row of scales forms a distinct to indistinct ventrolateral fold along the body. The subdigital scales are strongly keeled. Femoral and preanal pores are absent. Caudal autonomy is absent.

• **DIAGNOSIS.** Members of this genus can be distinguished from all other members of the family Corytophanidae (*sensu* Frost and Etheridge 1989, Frost et al. 2001) by possessing a triangular-shaped cephalic casque projecting posteriorly past the head. *Corytophanes* is further distinguished from all other pleurodont iguanian lizards by the following combination of characters: moderate size (to 125 mm SVL); nuchal and middorsal crests present; body laterally compressed; caudal autonomy absent; gular fold present; femoral and preanal pores absent; nasal scale single, nostril located more or less centrally in scale; dorsal body scales large, imbricate, usually smooth; and ventral body scales large, imbricate, and strongly keeled.

• **DESCRIPTIONS.** Brief generic descriptions are in Fitzinger (1843), Gray (1845), Boulenger (1885), Dunn (1944), Taylor (1956), Lee (1996), Köhler (2000), and Savage (2002).

Comprehensive descriptions of all three species, in addition to brief generic descriptions, are in Duméril et al. (1870–1909), Lang (1989a), Köhler (1999), and in the species accounts (McCranie et al. 2004, Townsend et al. 2004a,b).

• **ILLUSTRATIONS.** See species accounts (McCranie et al. 2004, Townsend et al. 2004a,b) for lists of illustrations.

• **DISTRIBUTION.** The genus *Corytophanes* occurs on the Atlantic versant from southeastern San Luis Potosí, México to northwestern Colombia, on the Pacific versant from Chiapas, México to western El Salvador and southwestern Honduras and from west-central Costa Rica to central Panamá, and also marginally on the Pacific versant in northwestern Costa Rica. This genus is known to occur at elevations from near sea level to 2200 m.

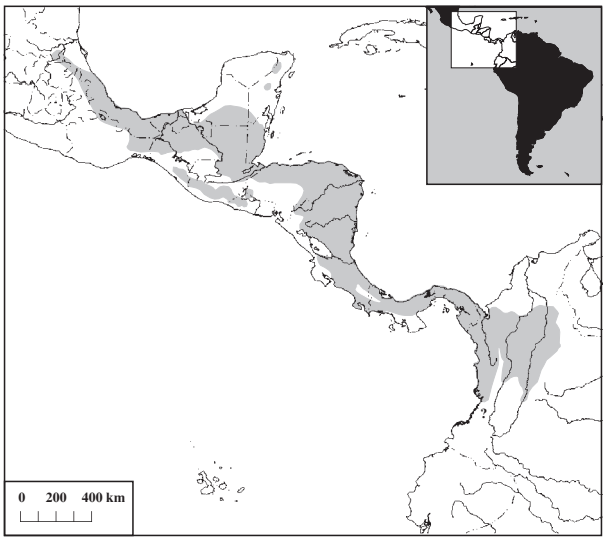
FIGURE 1. *Corytophanes cristatus* (UF 137646) from Crique Wahatíngni, Gracias a Dios, Honduras (photograph by JHT).

FIGURE 2. *Corytophanes hernandesii* from Estación de Biología Tropical de los Tuxtlas, Veracruz, México (photograph by Robert Powell).

FIGURE 3. *Corytophanes percarinatus* from El Imposible National Park, Ahuachapán, El Salvador (photograph by Gunther Köhler).

• **FOSSIL RECORD.** Romer (1966) listed this genus from the Pleistocene of North America. However, Estes (1983), in a comprehensive review of fossil lizards, did not include any fossil records of *Corytophanes*.

• **PERTINENT LITERATURE.** Extensive literature reviews for each species appear in McCranie et al. (2004) and Townsend et al. (2004a,b). Additional references to the genus are listed by topic: **literature reviews** (Smith 1969; Smith and Smith 1976,



MAP. Distribution of lizards in the genus *Corytophanes*.

1993; Villa et al. 1988), **biogeographical analyses** (Duellman 1966, 2001; Savage 1966, 1982; Dixon 1979), **taxonomy and phylogenetic analyses** (de Queiroz 1987, Etheridge and de Queiroz 1988, Frost and Etheridge 1989, Lang 1989a, Frost et al. 2001, Schulte et al. 2003), **phylogenetic patterns of viviparity** (Lee and Shine 1998), **reproduction** (McCoy 1968, Tinkle and Gibbons 1977, Blackburn 1982, Fitch 1982, Shine 1986), **eye morphology** (Underwood 1970, de Queiroz 1982), **osteology** (Romer 1956; Etheridge 1964, 1965, 1967; Weiner and Smith 1965), **dentition** (Olson et al. 1987), **absence of femoral and preanal pores** (Renous-Lécuru and Jullien 1972), **hemipenes** (Cope 1896), **scale microanatomy** (Friederich 1978, Peterson 1984, Lang 1989b), **head casque functional morphology** (Schwenk 1980), **hindlimb functional morphology** (Snyder 1954), **lack of caudal autonomy** (Arnold 1984, 1988, 1994), **arterial systems** (Zug 1971), **karyotypes** (Williams and Hall 1976, Schwenk et al. 1982), **dietary analysis** (Sasa and Salvador Monrós 2000), **ectoparasites** (Brennan and Dalmat 1960), **hemoparasites** (Telford 1984), **predation** (Parker 1977, Panasci 1995, Schulze et al. 2000, Thorstrom 2000), **captive husbandry** (Wynne 1981, Montanucci 1984, Köhler 1999), **ethnozoology** (Malkin 1956), and **miscellaneous** (Casas A. and McCoy 1979).

• **KEY TO SPECIES.** The number in parentheses following the species name refers to the Catalogue account number.

1. a. Nuchal crest not continuous with middorsal crest ..... …..... *C. hernandesii* (790)
   b. Nuchal crest continuous with middorsal crest …..... 2
2. a. Dorsal head scales smooth to slightly rugose; no prominent lateral squamosal spine present .... *C. cristatus* (789)
   b. Dorsal head scales distinctly keeled to strongly rugose; prominent lateral squamosal spine present .....… ..... *C. percarinatus* (791)

• **REMARKS.** Some authors have considered Wiegmann *in* Gray (1831) to be the author of the name *Chamaeleopsis*. We consider Wiegmann (1831) the correct author of this generic name, despite a lack of certainty regarding whether Gray (1831) or Wiegmann (1831) appeared first (see McCranie et al. 2004).

Frost and Etheridge (1989) and Frost et al. (2001) provided evidence for recognizing the family Corytophanidae, however Schulte et al. (2003) proposed placing Corytophaninae within the more inclusive family Iguanidae.

• **ETYMOLOGY.** *Corytophanes* is derived from the Greek words *korythos* (helmet) and *phaneros* (visible, evident) and refers to the prominent head crest.

• **COMMENT.** We follow Liner (1994) in using the common names Helmeted Basilisks and Turipaches, rather than the name, Helmeted Iguanas, proposed by Frank and Ramus (1995).

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